Challenges to Communication in Locked-in Syndrome

- Medical issues
- Fluctuating motor abilities
- Fatigue
- Cognitive deficits
  - Attention/processing
  - Executive functions
  - Memory
  - Impulsivity
- Pre-morbid personality/preferences
- Family dynamics
- Financial considerations

AAC Assessment

- Establishing visual attention
- Establishing a consistent motor response
- Low-tech AAC options
- High-tech AAC options
- Incorporating verbal speech
Establishing Visual Attention

- Consistent alertness
- Eye contact
- Visual tracking
  - Limited ROM/control
  - Fatigue
  - Consider response time

Establishing Consistent Motor Response

- Volitional
- Replicable on command
- Start with spontaneous movements
- Be creative!
  - More than just thumbs up/down, eye blinks
- Sufficient ROM/strength to be communicative
  - Simple y/n or AAC activation

Low-Tech AAC

- Consider combination of patient’s motor, cognitive, and language abilities
- Binary motor movement
- Use of external low-tech communication aids
High-Tech AAC

- Direct selection vs. scanning
- Access modality
  - switches
  - keyboard
  - pointer/laser pointer
  - sip and puff
  - headmouse
  - mouthstick
  - eye gaze
  - Brainfingers (brainfingers.com)

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High-Tech AAC

- Dynavox Vmax
- Lightwriter
- Microlite Switch
- Sip and Puff
- Headmouse
- Mouthstick

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Locked In Syndrome Part 1: Medical Overview and Swallowing/Cognition

High-Tech AAC
- Device selection
- Device trials/loans
- Adapting devices/access modality as needed

Incorporating Verbal Speech
- Spontaneous voicing
- Shaping with adduction strategies
- Dysarthria treatment
- Supplementing with AAC

Challenges to PO intake in Locked-In Syndrome
- Brainstem/cranial nerve involvement
- Ataxia
- Fatigue/decreased stamina for safe PO intake
- Oral hygiene/dependence for oral care

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Challenges to PO intake in Locked-In Syndrome (cont.)

- Inconsistency between bedside presentation and performance on instrumental assessment
- Silent aspiration
- Dependence for feeding
- Need for supplemental tube feedings

Resources

- Center for Assistive Technology (CAT)
  http://www.upmc.com/Services/rehab/rehab-institute/services/cat/Pages/default.aspx
  412-647-3130

- Pennsylvania’s Assistive Technology Lending Library
  http://disabilities.temple.edu/programs/assistive/atlend/#libraryinfo

References
